



CITY UNIVERSITY

Department of CSE

Mid-Term Exam

Department Name: Computer Science & Engineering

Course Code : CSE-325

Course Name: System Analysis & Design

Task Name: 1. Use Case Diagram of a Banking Management System.

2. Class Diagram of an Online Shopping System.

Submitted BY

Name: Rubel Patwary

#ID: 171442607

Program: CSE(Evn)

Batch: 44th

Submitted To

Recharl Philip

LECTURER, DEPARTMENT OF CSE
CITY UNIVERSITY, BANGLADESH

Date of Submission: 20.05.2019

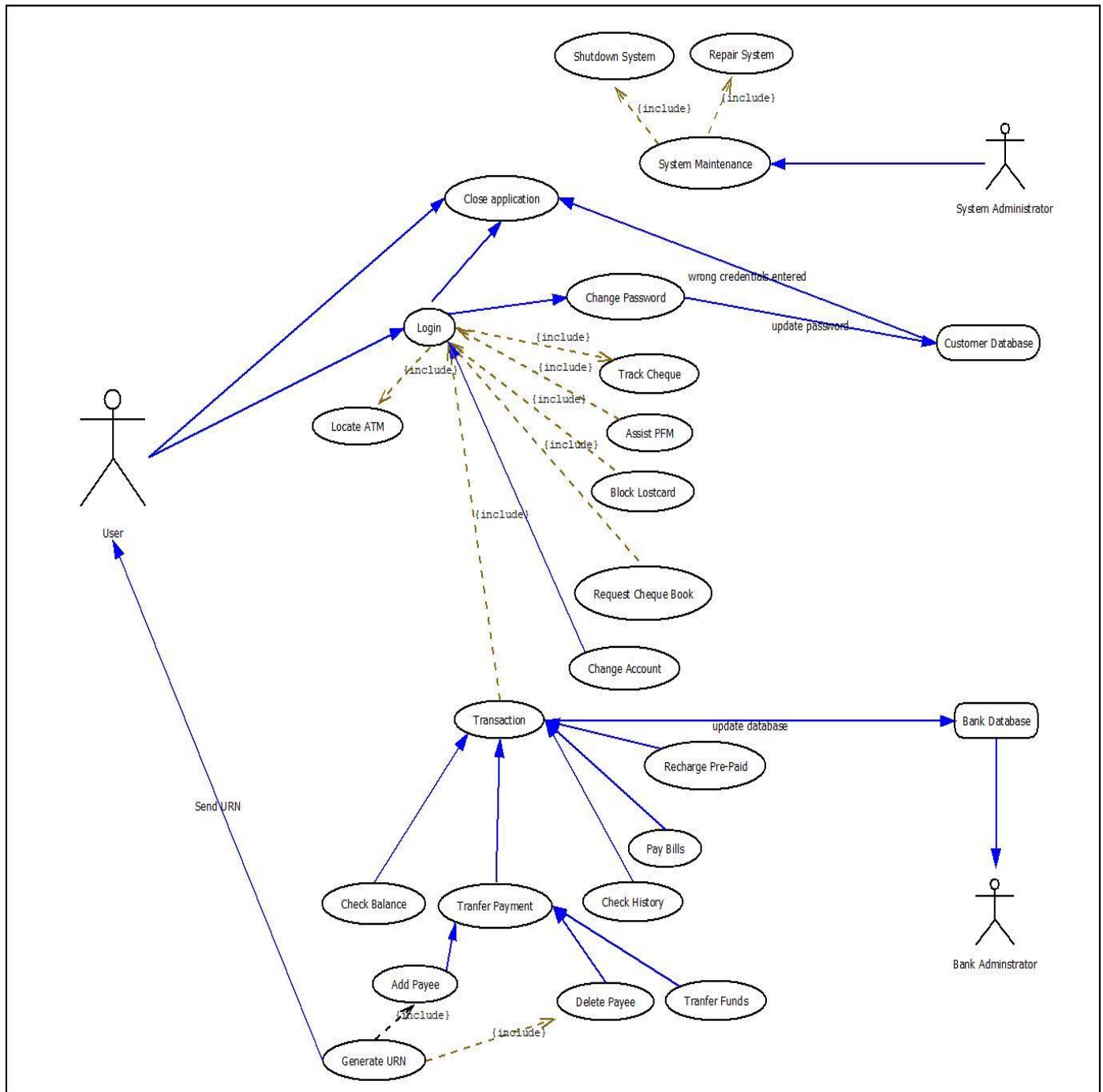
System Analysis & Design

Contents

System Analysis & Design	2
Task Name: Use Case Diagram of a Banking Management System.	3
User:	4
System Maintenance:	4
Transaction:	4
Bank Database:	4
Task Name: Class Diagram of an Online Shopping System.	5
Online Shopping UML Class Diagram	6

Task Name: Use Case Diagram of a Banking Management System.

Banking App



User: Often, doing your banking through your smartphone may be more secure than on a standard computer but there are some exceptions. The most important thing is to make sure you use the official application for your bank and that you keep it updated. Check that your bank's mobile app has been validated for its security.

System Maintenance: If your app is designed for the external users, some of the variables that will change within a few months of your app's release date and impact your app's performance are:

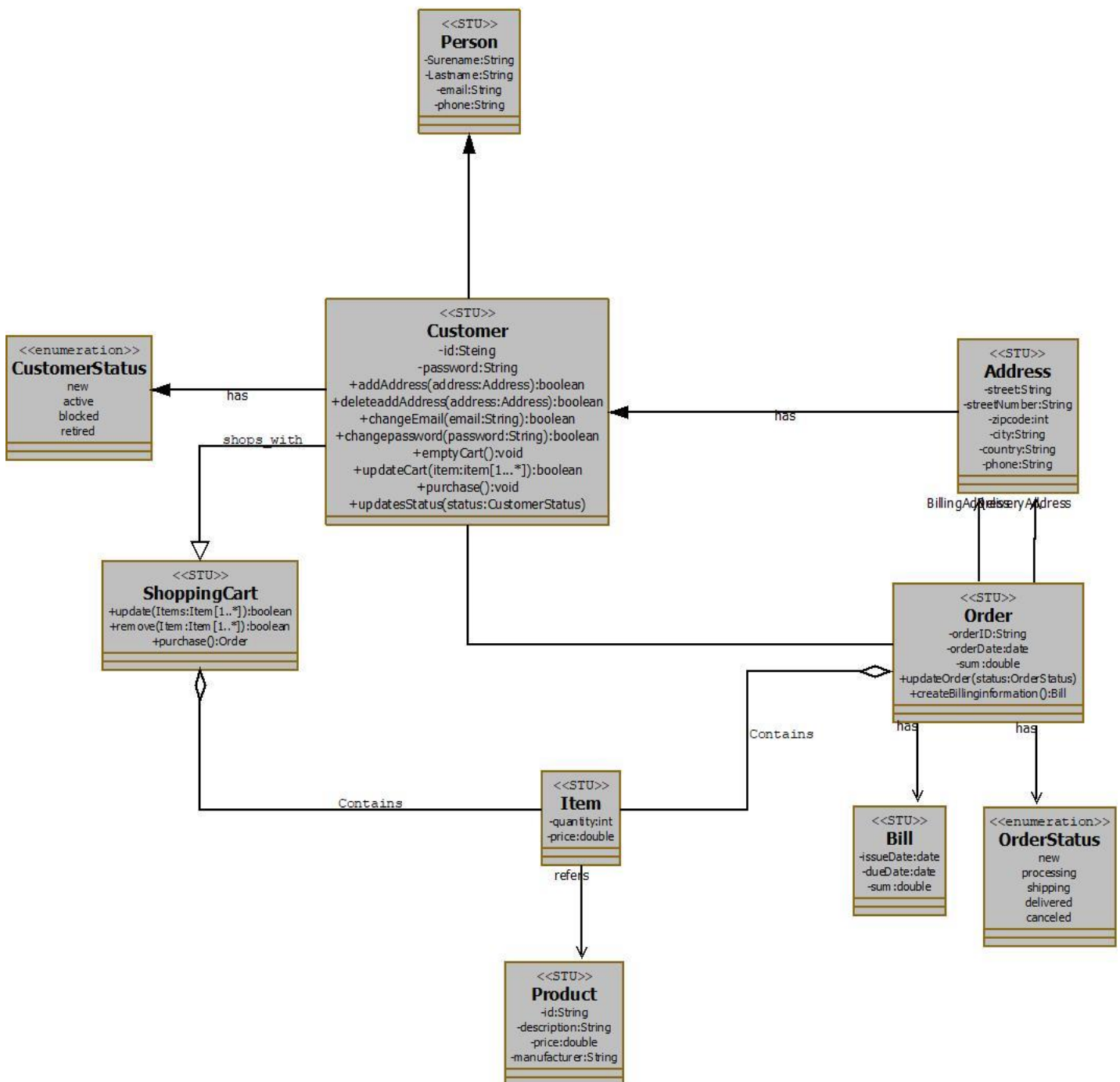
- **Hardware:** As new mobile devices are released, obsolete apps may not work as they were intended.
- **Operating system:** Every year sees updates in iOS and Android versions, and apps need to be updated so that they are compatible with newer versions.
- **Programming language:** Apps will also have to be updated based on changes to the programming language (Objective C to Swift, Java to HTML5).
- **Styles and designs:** Mobile UI used to follow skeuomorphic design principles before Apple and Android both adopted material design. This meant that all apps had to update their interfaces as well. Libraries: Most apps use third party libraries and dependencies which change frequently. The apps will be broken unless they are updated.
- **Usage Patterns:** As your app matures, your user base will also mature, and the UI might need refreshing to reflect the changes.
- **Infrastructure:** If the infrastructure on which your app is hosted changes (self-hosted to AWS) you will have to update the app.
- **Security bugs:** Apps may be affected by security holes any time, and you will have to update the app in order to fix the vulnerabilities.

Transaction: Transaction banking is the process of money transfer, typically for corporates by banks. It includes commercial banking products, domestic and cross-border payments, professional risk mitigation for international trade and the provision of trust, agency, depository, custody and related services.

Bank Database: In telecommunications, computing, and information architecture, a data bank or databank is a repository of information on one or more subjects – a database – that is organized in a way that facilitates local or remote information retrieval and is able to process a large number of continual queries over a long period of time. A data bank may be either centralized or decentralized, though most usage of this term refers to centralized storage and retrieval of information, by way of analogy to a monetary bank. The data in a data bank can be anything from scientific information like global temperature readings, and governmental information like census statistics, to financial-system records like credit card transactions, or the inventory available from various suppliers.

Task Name: Class Diagram of an Online Shopping System.

Ecommerce Shopping class Diagram



Online Shopping UML Class Diagram

Conceptual Class Diagram of Online Shopping System. Unified Modeling Language (UML) is the de facto standard for requirements modeling and system design. UML as a visual language can tremendously help customers, project managers, and developers to specify the requirements of a target system.

Here we provide an example of UML class diagram which shows a domain model for online shopping. The purpose of the diagram is to introduce some common terms, "dictionary" for online shopping Customer, Web User, Account, Shopping Cart, Product, Order, Payment, etc. and relationships between. It could be used as a common ground between business analysts and software developers.

Each customer has unique id and is linked to exactly one account. Account owns shopping cart and orders. Customer could register as a web user to be able to buy items online. Customer is not required to be a web user because purchases could also be made by phone or by ordering from catalogues. Web user has login name which also serves as unique id. Web user could be in several states - new, active, temporary blocked, or banned, and be linked to a shopping cart. Shopping cart belongs to account.

Account owns customer orders. Customer may have no orders. Customer orders are sorted and unique. Each order could refer to several payments, possibly none. Every payment has unique id and is related to exactly one account.

Each order has current order status. Both order and shopping cart have line items linked to a specific product. Each line item is related to exactly one product. A product could be associated to many line items or no item at all.